

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1-12 are currently pending in this application. Claims 1 and 8 have been amended to more clearly and distinctly claim the subject matter of the present invention. Applicants submit that no new matter has been introduced into the application by these amendments.

Allowable Subject Matter

The Applicants note with appreciation the Examiner's indication that claims 9-12 contain allowable subject matter.

Claim Objections

The Examiner objected to claims 3-5 as being dependent upon a rejected base claim. Withdrawal of this objection is respectfully requested as the Applicants respectfully submit that amended claim 1 is allowable, as explained below.

Claim Rejections - 35 USC § 102(b)

Claims 1, 2 and 8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,920,547 to Werth (hereinafter "Werth").

With respect to claim 1, the Examiner asserts that Werth teaches allocation of timeslots for control information so that neighboring cells do not transmit control information in the same timeslot; and reusing the time slots for transmission of control information that are not being used for transmission of control information for user traffic. The Applicants respectfully disagree.

Claim 1 as currently amended recites allocation of timeslots for transmission of control information so that a time slot allocated for transmission of control information in a first cell is not used for transmission of control information in any cells neighboring said first cell and wherein said time slot allocated for transmission of control information in the first cell is reused for user traffic in cells neighboring the first cell. This scheme is not disclosed in Werth. Werth is related to a scheme of temporarily interrupting a control channel and transmitting a traffic channel through the time slot allocated for the control channel, and vice versa. Werth discloses as follows:

FIG.2 roughly describes the temporary setting up of a second Traffic Channel TCH, in that the Logical Control Channel LCCH is temporarily switched off. The time slot assigned to the Logical Control Channel LCCH is thus available for setting up the second Traffic Channel TCH.

If a second Traffic Channel is required, the LCCH transmission is stopped, and a further Traffic Channel is initialized in the time slot of the Logical Control Channel which has become free (FIG.2).

(See column 3 lines 59-64 and column 4 lines 30-33). Werth discloses a scheme of temporarily transmitting a second TCH while blocking transmission of LCCH. Werth fails to disclose a scheme of allocating different time slots to neighboring cells so that each neighboring cell utilize different timeslots for transmission of control information. Werth also fails to disclose taking a timeslot allocated for a first cell

for transmission of control information and reusing it for the purpose of transmitting traffic data in cells neighboring the first cell.

In accordance with the present invention, timeslots designated for control information are initially designated such that neighboring cells use different timeslots in order to minimize inter-cell interference. After the allocation of timeslots, a first cell may use a timeslot which is allocated to a neighboring cell for transmission of control information for transmission of user traffic data in the first cell. Such reuse of the timeslot may be used to increase system capacity by utilizing the otherwise unused timeslot so long as the reuse of the timeslot does not degrade receipt of control information in the neighboring cells. Therefore, the system constantly monitors system performance and if any degradation on the common control channel is detected in the neighboring cell, transmission of traffic data via the timeslot in the first cell is restricted. These schemes are not disclosed by Werth. Therefore, claim 1 is not anticipated by Werth.

With respect to claim 2, claim 2 is a dependent claim of claim 1. Therefore, it is believed that claim 2 is also allowable for the same reason stated above.

With respect to claim 8, claim 8 as currently amended recites "transmitting and receiving user traffic in CPCH timeslots which are utilized for transmission of control information in cells neighboring said first cell". As stated above with respect

to claim 1, this scheme is not disclosed by Werth. Therefore, claim 8 is not anticipated by Werth.

Based on the arguments presented above, withdrawal of the rejection of claims 1, 2 and 8 is respectfully requested.

Claim Rejections - 35 USC § 103(a)

Claims 6 and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Werth. The Examiner rejected claims 6 and 7 based on the same reason for claim 1 further asserting that primary and secondary control channels are well known in the art. As stated above with respect to claim 1, Werth fails to disclose the scheme of timeslot allocation in each cell such that neighboring cells use different timeslots in order to minimize inter-cell interference, and a scheme of timeslot reuse for transmission of traffic data such that a cell utilizes a timeslot designated for transmission of control information in a neighboring cell. Therefore, claims 6 and 7 are allowable over Werth.

Based on the arguments presented above, withdrawal of the rejection of claims 6 and 7 is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this

Applicant: Roy et al.
Application No.: 10/749,905

application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Roy et al.

By

John C. Donch, Jr.
Registration No. 43, 593

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

JCD/dmr